REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed October 4, 2004. In the Office Action, the Examiner notes that claims 1-16 and 21-24 are pending and rejected. By this response, claims 1 and 9 are amended and the remaining claims continue unamended.

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §102 and 103.

It is to be understood that the Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to the Applicants' subject matter recited in the pending claims. Further, the Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

Objections

The Examiner has objected to the specification because the Abstract is missing. Applicants have amended the specification to include the missing Abstract.

Rejections

35 U.S.C. §102

Claims 1 and 9-10

The Examiner has rejected claims 1 and 9-10 under 35 U.S.C. §102(b) as being anticipated by Yamamoto (U.S. Patent 5,699,177, hereinafter Yamamoto). The Applicants respectfully traverse the rejection.

The Applicants' independent claims 1 and 9 recite:

> "1. (Currently Amended) A node for a fiber optic communication network, the node including a first device for converting a first optical signal at a first frequency carried by the network into a first electrical signal, a second device for demodulating from the first electrical signal first information modulated on the first optical signal, a third device for modulating on a second electrical signal second information, a fourth device for converting the second information modulated on the second electrical signal into a second optical signal at the first frequency, a fifth device for providing a third optical signal at a second frequency, the third

optical signal having third information modulated on it, a sixth device for multiplexing the second and third optical signals and placing the multiplexed second and third optical signals on the network, and a control device, for processing control information included within said first information and providing within said second information control information adapted for use by another node."

"9. A node for a fiber optic communication network, the node including a first device for converting a first optical signal at a first frequency carried by the network into a first electrical signal, a second device for demodulating first information from the first electrical signal modulated on the first optical signal, a third device for modulating second information on a second electrical signal, a fourth device for converting the second information modulated on the second electrical signal into a second optical signal at the first frequency, and a control device, for processing control information included within said first information and providing within said second information control information adapted for use by another node."

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). The Yamamoto reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

In contrast to the invention of the Applicants, there is absolutely no teaching, suggestion or disclosure in Yamamoto for "a control device, for processing control information included within said first information and providing within said second information control information adapted for use by another node," as provided in claims 1 and 9.

Yamamoto teaches a network system for moving dynamic image data including a wavelength-multiplexing transmission path for multiplexing and transmitting a plurality of wavelengths between a plurality of terminal equipment connected to a transmission path. Transmission wavelength and reception wavelength are assigned in advance to each of the plurality of terminals. If a transmitting terminal transmits on a wavelength different than that of an intended receiving terminal, other terminal equipment located between the transmission source terminal and the destination terminal receives the data at the transmission wavelength and retransmits the data at the destination terminal

wavelength. In this manner, the unique, non-shared wavelength channels of the various terminals are maintained. The nodes of the Yamamoto arrangement are adapted to receiving dynamic image data portions for display, generating dynamic image data using a camera, and transmitting the new dynamic image data.

In stark contrast to the Yamamoto arrangement, the claimed invention utilizes a common wavelength channel to communicate information among multiple nodes within a fiber optic communication network. This is entirely unlike the Yamamoto arrangement. Moreover, information processed by the invention comprises control information, rather than the dynamic image data processed by the Yamamoto arrangement. It is also instructive to note that the transmitted dynamic image data is generated at the node of the Yamamoto arrangement. By contrast, the claimed invention may transmit, in the second information, information that was received within the first information.

As such, the Applicants submit that independent claims 1 and 9 are not anticipated and fully satisfy the requirements of 35 U.S.C. §102 and are patentable thereunder. Furthermore, claim 10 depends directly from independent claim 9 and recites additional features thereof. As such and at least for the same reasons as discussed above, the Applicants submit that dependent claim 10 is also not anticipated and fully satisfies the requirements of 35 U.S.C. §102 and is patentable thereunder. Therefore, the Applicants respectfully request that the Examiner's rejection be withdrawn.

35 U.S.C. §103

Claims 2-8, 11-12, 21-24

The Examiner has rejected claims 2-8, 11-12, 21-24 under 35 U.S.C. §103(a) as being anticipated by Yamamoto. The Applicants respectfully traverse the rejection.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its

properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Yamamoto reference fails to teach or suggest the Applicants' invention as a whole.

Claims 2-8, 11-12 and 21-24 are patentable over the Yamamoto reference, since these claims depend, either directly or indirectly, from claims 1 or 9 and recite additional limitations therefrom. Therefore, for at least the reasons discussed above with respect to claims 1 and 9, claims 2-8, 11-12 and 21-24 are also patentable.

The Examiner notes that Yamamoto "does not specific teach an eighth device for demodulating from the third electrical signal fourth information modulated on the fourth optical signal."

The Examiner contends that "a device (FIG. 13, 115) for demodulating from the first electrical signal first information modulated on the first optical signal renders claim 2 obvious since, allegedly, "another demodulating device for demodulating the third electrical signal fourth information modulated on the fourth optical signal" can be provided. The Applicants strongly disagree.

Importantly, it is noted that the decoding unit 115 is only used to decode a portion of a dynamic range of a video signal for display on display device 117 (see pp. 17-18 of Yamamoto). There is no teaching of any decoded information being re-encoded or otherwise returned to the network. That is, even if the decoding unit 115 is somehow equated to the claimed "second device, the output of the decoding unit is never retransmitted on any wavelength. Thus, even if multiple decoding units 115 are employed, the result is merely the decoding and display of multiple signals, not any retransmission or use of any signal subsequent to the decoding units 115.

Further with respect to claims 3-5, the above discussion is applicable. Specifically, the structure within the Yamamoto reference identified as rendering the claimed inventions obvious does not in fact result in a function comparable to that of the claimed invention. Thus, the identified structure cannot be used within the context of an obviousness rejection of the claimed invention in any of these claims.

As such, the Applicants submit that independent claims 1 and 9 and dependent claims 2-8, 11-12, and 21-24 which depend directly or indirectly from independent claims 1 and 9 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and

are patentable thereunder. Therefore, the Applicants respectfully request that the Examiner's rejection be withdrawn.

Claims 13-16

The Examiner has rejected claims 13-16 under 35 U.S.C. §103(a) as being unpatentable over Yamamoto in view of Chawki et al. (U.S. Patent 5,576,75, hereinafter Chawki). The Applicants respectfully traverse the rejection.

Claims 13-16 depend, directly or indirectly, on claims 1 or 9 and recite additional limitations therefrom. Therefore, for at least the reasons discussed above with respect to claims 1 or 9, claims 13-16 are also patentable.

The Examiner notes that Yamamoto "does not teach a network with two closed loop optical fibers as claimed." The Examiner then contends that the reconfigurable wavelength-division-multiplexed optical loop telecommunications network of Chawki bridges the gap between the Yamamoto reference and the claimed invention.

The Yamamoto and Chawki arrangements cannot be operably combined without defeating the purpose of either of the arrangements.

The purpose of the Yamamoto arrangement is to deliver, via pre-assigned respective wavelength channels, dynamic image portions for display. The purpose of the Chawki reference arrangement is to reduce the number of wavelengths utilized in case of low traffic, thus allowing multiple stations to share data from a single wavelength channel and thereby reducing the number of laser sources necessary.

The purpose of reducing laser sources by utilizing a common wavelength channel between stations is compromised within the context of the Yamamoto arrangement where individual wavelength channels must be used for each transmission device. Similarly, the high bandwidth video traffic divided up (according to dynamic range portions) for transmission and display within the Yamamoto arrangement does not provide for a low traffic state in which the Chawki arrangement would derive its benefit.

Moreover, even if the cited references could somehow be operably combined, the substantial gap between the Yamamoto arrangement and the claimed invention is still not bridged by the Chawki reference. Specifically, there is no teaching in either

reference of "a control device," for processing control information included within said first information and providing within said second information control information adapted for use by another node." Additional limitations within the independent claims are also lacking within the cited references, either singly or in combination.

Therefore, the combined references fail to teach or suggest the Applicants' invention as a whole.

As such, the Applicants submit that independent claim 1 and dependent claims 13-16 which depend directly or indirectly from independent claim 1 are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully request that the Examiner's rejection be withdrawn.

SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the Office Action. Therefore, the Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

CONCLUSION

Thus, the Applicants submit that none of the claims presently in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §102 and §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 1/4/05

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